

ABSTRACT

The present invention relates to semi-permeable microcapsules, which
5 exhibit an increased resistance to mechanical stresses as well as an increased
resistance to chemical degradation. More specifically, this semi-permeable
microcapsule has a bead enclosing a material such as living cells, covalently
linked to a semi-permeable layer, made of a polycation cross-linking derivative,
covering the bead. The present invention is also directed to a pharmaceutical
10 composition comprising the above-mentioned semi-permeable microcapsules. The
present invention is also directed to the use of such microcapsule in a method for
microencapsulating a beaded material and in a method for treating diabetes in a
subject.